



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/782,449	02/19/2004	Andrew W. Gieschen	42024.8029.US01	5153
34055	7590	11/16/2004	EXAMINER	
PERKINS COIE LLP			PATEL, MITAL B	
POST OFFICE BOX 1208			ART UNIT	
SEATTLE, WA 98111-1208			PAPER NUMBER	

3743

DATE MAILED: 11/16/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

10/782,449

**Applicant(s)**

GIESCHEN ET AL.

**Examiner**

Mital B. Patel

**Art Unit**

3743

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 5/27 & 6/02
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_

## DETAILED ACTION

### *Priority*

1. It is noted that this application appears to claim subject matter disclosed in prior Application No. 09/773,261, filed 1/31/2001 and Application No. 09/495,494, filed 2/1/2000. Although a reference to the prior applications have been inserted as the first sentence of the specification of this application or in an application data sheet (37 CFR 1.76), **the current status of all nonprovisional parent applications referenced should be included.**

If the application is a utility or plant application filed under 35 U.S.C. 111(a) on or after November 29, 2000, the specific reference to the prior application must be submitted during the pendency of the application and within the later of four months from the actual filing date of the application or sixteen months from the filing date of the prior application. If the application is a utility or plant application which entered the national stage from an international application filed on or after November 29, 2000, after compliance with 35 U.S.C. 371, the specific reference must be submitted during the pendency of the application and within the later of four months from the date on which the national stage commenced under 35 U.S.C. 371(b) or (f) or sixteen months from the filing date of the prior application. See 37 CFR 1.78(a)(2)(ii) and (a)(5)(ii). This time period is not extendable and a failure to submit the reference required by 35 U.S.C. 119(e) and/or 120, where applicable, within this time period is considered a waiver of any benefit of such prior application(s) under 35 U.S.C. 119(e), 120, 121 and 365(c). A priority claim filed after the required time period may be accepted if it is accompanied by

Art Unit: 3743

a grantable petition to accept an unintentionally delayed claim for priority under 35 U.S.C. 119(e), 120, 121 and 365(c). The petition must be accompanied by (1) the reference required by 35 U.S.C. 120 or 119(e) and 37 CFR 1.78(a)(2) or (a)(5) to the prior application (unless previously submitted), (2) a surcharge under 37 CFR 1.17(t), and (3) a statement that the entire delay between the date the claim was due under 37 CFR 1.78(a)(2) or (a)(5) and the date the claim was filed was unintentional. The Director may require additional information where there is a question whether the delay was unintentional. The petition should be addressed to: Mail Stop Petition, Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

### ***Claim Objections***

2. There is a lack of antecedent basis for the following limitations:

- Claim 18, line 6, "the largest bead"

Correction is required.

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1, 2, 3, 4, 5, 6, 7, 8, 10, 11, 12, 13, 15, and 17 are rejected under 35 U.S.C. 102(b) as being anticipated by Hurka et al (US 4,841,964).

Art Unit: 3743

5. **As to claim 1**, Hurka et al teaches an inhaler (**See Figs. 1-14**) for providing a dose of a dry powder pharmaceutical to a patient, comprising: a dispersion chamber **1,3** having an open central interior; at least one bead **4** in the dispersion chamber, with the bead having a characteristic dimension of at least 50 to 90% of an interior height of the dispersion chamber (**See Col. 8, lines 55-67**); an inlet **6** connecting into the dispersion chamber; and an outlet **8** connecting into the dispersion chamber and spaced apart from the inlet.

6. **As to claim 2**, Hurka et al teaches an inhaler wherein the dispersion chamber includes an inner wall forming a bead race (**that formed by 3**), and wherein the bead moves around the bead race upon inhalation by the patient (**See Col. 5, lines 32-46, Col. 6, lines 39-58**)

7. **As to claim 3**, Hurka et al teaches an inhaler wherein the bead race has a radius of curvature greater than a radius of curvature of the bead (**See Col. 5, lines 32-46 and Col. 8, lines 55-67, wherein the smaller bead would have a radius of curvature less than that of the bead race**) .

8. **As to claim 4**, Hurka et al teaches an inhaler wherein the dispersion chamber has a flat bottom surface and a flat top surface adjoining the bead race (**See Figs. 1, 5, 8, and 9**).

9. **As to claim 5**, Hurka et al teaches an inhaler further comprising means **2** for retaining the bead in the chamber.

10. **As to claim 6**, Hurka et al teaches an inhaler wherein the bead moves around chaotically in the dispersion chamber when a patient inhales on the outlet (**See Col. 7,**

Art Unit: 3743

**lines 37-61 which disclose non-smooth surfaces of the orbit path which would result in chaotic movement of the bead in the bead race).**

11. **As to claim 7**, Hurka et al teaches an inhaler further comprising a dose platform adjacent to the inlet, for holding a dose of dry powder pharmaceutical (**See Col. 8, lines 35-38 wherein the surface of the orbital path serves as the dose platform**).

12. **As to claim 8**, Hurka et al teaches an inhaler further comprising an obstruction (**See Col. 7, lines 50-56, wherein the grooves are considered to be an obstruction**) in the dispersion chamber to cause the bead to move chaotically.

13. **As to claim 10**, Hurka et al teaches an inhaler wherein the dispersion chamber comprises a separate component, installable into, and removable from the inhaler (**See Fig. 5**).

14. **As to claim 11**, Hurka et al teaches an inhaler wherein a plurality of beads (**See Col. 8, lines 55-64; See also Col. 3, lines 12-20**) are located in the dispersion chamber, and wherein at least one of the beads includes a discontinuity (**See Col. 7, line 45-47 wherein a golf ball structure is disclosed which structure would have discontinuity**).

15. **As to claim 12**, Hurka et al teaches an inhaler wherein the bead having the discontinuity is polygonal shaped, and the discontinuity comprises a corner (**See Col. 7, line 45-47 wherein a golf ball structure is disclosed which structure would be a spherical polygon having a corner**).

16. **As to claim 13**, Hurka et al teaches an inhaler wherein the bead having the discontinuity comprises a sphere with a flat surface (**See Col. 7, line 45-47 wherein a**

Art Unit: 3743

**golf ball structure is disclosed which structure would be a spherical polygon also have portions which are flat surfaced).**

17. **As to claim 15**, Hurka et al teaches an inhaler wherein from 2 to 10 rounds beads are provided in the dispersion chamber (**See Col. 8, lines 55-64**).

18. **As to claim 17**, Hurka et al teaches an inhaler wherein the dispersion chamber has a characteristic dimension that is from 4 to 20 times greater than the characteristic dimension of the bead (**See Col. 8, lines 55-64; See also Col. 3, lines 12-20**).

***Claim Rejections - 35 USC § 103***

19. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

20. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

21. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein

Art Unit: 3743

were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

22. Claims 9, 16 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hurka et al (US 4,481,964).

23. **As to claim 9**, Hurka et al teaches essentially all of the limitations except for the specifics regarding the electrical charge of the bead and the particles of the dry powder. However, such a charge would depend on the type of bead and type of pharmaceutical agent used. It should be noted that in the embodiment taught by Hurka that does not involve coating of the pharmaceutical to the bead, the particles inherently would have to have the same charge of polarity as the bead, otherwise all the particles would be stuck on the bead and not be available to the user for inhalation.

24. **As to claim 16**, Hurka et al teaches essentially all of the limitations except for wherein the beads move around the dispersion chamber at 4000-10,000 rpm. It should be noted that in Col. 5, lines 38-45, a range of 300 to 3000 rpm is disclosed by Hurka et al. Additionally, Hurka et al teach that depending on the chosen pressure difference and ball tolerance, the rotational speed will vary. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to arrive at the above limitation depending on the pressure difference and ball tolerance.



Art Unit: 3743


25. **As to claim 18**, Hurka et al teaches an inhaler (**Figs. 1-14**) for providing a dose of a dry powder pharmaceutical to a patient, comprising: a dispersion chamber **1,3** having an open central interior; at least one bead **4** in the dispersion chamber, with the dispersion chamber having an interior characteristic dimension that is 4 to 20 times greater than a characteristic dimension of the largest bead in the dispersion chamber (**See Col. 8, lines 55-64; See also Col. 3, lines 12-20**); an inlet **6** connecting into the dispersion chamber; and an outlet **8** connecting into the dispersion chamber and spaced apart from the inlet. Hurka et al fails to disclose a single unit dose blister container supported on the inlet, and containing a single dose of dry powder pharmaceutical, however, the use of such blister containers is well known in the powder inhaler art and it would have been obvious to one of ordinary skill in the art at the time of the invention to provide such a blister container since Hurka et al discloses the use of any dry powder pharmaceutical to be used with a single inhaler.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mital B. Patel whose telephone number is 703-306-5444. The examiner can normally be reached on Monday-Friday (11:00-7:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Henry Bennett can be reached on 703-308-0101. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 3743

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

 11/19/04  
Mital B. Patel  
Examiner  
Art Unit 3743